

CAR 000 191 536
Part A 3A-1
JUN 05 2017



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105
Phone: (415) 972-3000
<http://www.epa.gov/region9>

Certified Mail

7016 1370 0000 0748 9481

*Via Certified Mail no.
Return Receipt Requested*

Kyle Meade
EHS Manager
Space Exploration Technologies
1 Rocket Road
Hawthorne, CA 90250

Dear Mr. Meade;

On April 12, 2017 representatives of the U.S. Environmental Protection Agency (EPA) and Los Angeles County Fire Department conducted an unannounced compliance evaluation inspection (CEI) of the Space Exploration Technologies (SpaceX) facility in Hawthorne, California, with EPA Identification Number **CAR 000 191 536**. The purpose of the inspection was to determine SpaceX's compliance with applicable federal environmental statutes and regulations, and in particular, the Resource Conservation and Recovery Act (RCRA), as amended, the regulations provided in the Code of Federal Regulations (CFR), Chapter 40, Parts 261-265, 268, 273, and 279, the California Code of Regulations (CCR), Title 22, Division 4.5, and the California Health and Safety Code, Division 20.

The inspectors noted the following deficiencies during the facility walkthrough:

- In the overflow less than 90-day hazardous waste accumulation area one 55-gallon container of mixed acid waste (D002) being prepped for shipment was not marked with an accumulation start date as required [40 CFR 262.34(a)(2) and 22 CCR 66262.34(f)(1)];
- SpaceX failed to locate the destination facility signed copy of two hazardous waste manifests during the inspection [40 CFR 262.40 and 22 CCR 66262.40].

SpaceX corrected the noted deficiencies within twenty-four hours of the conclusion of the inspection. Therefore, EPA intends to take no further action regarding these deficiencies. This letter should not be construed as a determination by the EPA of compliance with any other applicable regulations.

003 7 0 200

If you have any questions regarding this letter, please contact Jennifer MacArthur of my staff at (415) 972-3994.

Sincerely,

A handwritten signature in black ink, appearing to read "D. McDaniel", with a long horizontal flourish extending to the right.

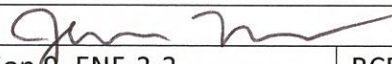
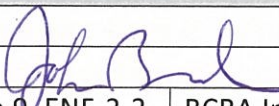
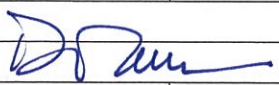
Douglas K. McDaniel
Chief, Waste and Chemical Section
Enforcement Division

CC:

Kristine Green, DTSC (kgreen@dtsc.ca.gov)

Joseph Kaslowski, Anaheim Fire & Rescue (jkaslowski@anaheim.net)

**Region 9 Enforcement Division
75 Hawthorne Street
San Francisco, CA 94105
RCRA INSPECTION REPORT**

Inspection Date(s):	4/12/17		Inspection Announced: No
Time:	Entry: 11:15 a.m.		Exit: 2:25 pm
Regulatory Program(s)	RCRA Subtitle C (Hazardous Waste)		
Company Name:	Space Exploration Technologies (SpaceX)		
Facility/Site Physical Location:	1 Rocket Road		
(city, state, zip code)	Hawthorne, CA 90250		
Geographic Coordinates:	33.920922, -118.328167		
County	Los Angeles		
Facility/Site Contact:	Kyle Meade	EHS Manager	
	kyle.meade@spacex.com		
	(310) 970-5138		
Facility/Site Identifier:	CAR 000 191 536		
Generator Status	Large Quantity Generator (LQG)		
NAICS:	336414 – Guided Missile & Space Vehicle Manufacturing		
Facility/Site Personnel Participating in Inspection:			
Kyle Meade	SpaceX	EHS Manager	
Veronika Ostrak	SpaceX	EHS Engineer	
Inspector(s):			
Jennifer MacArthur (Lead)	{signature} 	{date} 5/31/17	
	US EPA Region 9, ENF-2-2	RCRA Inspector	
	macarthur.jennifer@epa.gov	(415) 972-3994	
John Brock	US EPA Region 9, ENF-2-2	RCRA Inspector	
	brock.john@epa.gov	(415) 972-3999	
Additional Person(s) Participating in Inspection:			
Michael Cervantes	LA County Fire Department	Haz Materials Specialist II	
	miguel.cervantes@fire.lacounty.gov	(310) 348-1786	
Peer Review:			
John Brock	{signature} 	{date} 5/31/17	
	US EPA Region 9, ENF-2-2	RCRA Inspector	(415) 972-3999
Supervisor Review:			
Douglas McDaniel	{signature} 	{date} 6/1/17	
	Waste and Chemical Section	Chief	(415) 947-4106

SECTION I – INTRODUCTION

Purpose of the Inspection

The purpose of the inspection was to determine Space Exploration Technologies' (SpaceX) compliance with applicable federal environmental statutes and regulations, and in particular, the Resource Conservation and Recovery Act (RCRA), as amended, the regulations provided in the Code of Federal Regulations (CFR), Chapter 40, Parts 261-265, 268, 273, and 279, the California Code of Regulations (CCR), Title 22, Division 4.5, and the California Health and Safety Code, Division 20.

Opening Conference

EPA Region 9 inspectors Jennifer MacArthur and John Brock accompanied by an inspector from the County of Los Angeles Fire Department arrived at the SpaceX facility in Hawthorne, CA at 11:15 am on April 12, 2017 for a routine unannounced compliance evaluation inspection (CEI). We met with Kyle Meade, Environmental Health and Safety Manager, at the opening conference of the inspection. I presented my credentials to Mr. Meade and informed him that this was an EPA inspection to determine SpaceX's compliance with RCRA regulations.

Facility/Site Description


SpaceX is an aerospace manufacturer and space transport services company headquartered in Hawthorne, California. It was founded in 2002 with the goal of reducing space transportation costs and enabling the colonization of Mars. SpaceX has since developed the Falcon launch vehicle family and the Dragon spacecraft family, which both currently deliver payloads into Earth orbit. The facility has been in its current location since 2007 and the company employs approximately 5000 workers. According to SpaceX's 2015 Biennial Report they generate waste rags with flammable solvents, paint related material, used isopropyl alcohol, mixed organic waste, sodium hydroxide solution, rags contaminated with alodine, waste kerosene and amines/resins. SpaceX was last inspected by EPA in September of 2015. No major violations were identified during the inspection.

SECTION II – OBSERVATIONS AND AREAS OF CONCERN

The on-site inspection portion of the CEI started in the main office area and proceeded to the inter-stage manufacturing area, engine assembly area, composite manufacturing area, curing area, bonding area, painting area including a collapsible spray booth, the main less than 90-day

hazardous waste accumulation area (HWAA), the overflow less than 90-day HWAA and ended back at the main office area.

The following table describes the areas of concern observed during the facility walkthrough.

NO.	OBSERVATION	PHOTOGRAPH	REGULATORY AREA OF CONCERN
1	The inspectors weren't able to locate the destination facility signed copy of two hazardous waste manifests being stored in the main HWAA. SpaceX provided EPA with the destination facility signed copy of the two manifests in an April 13, 2017 email.	N/A	A generator must keep a copy of each manifest signed in accordance with 40 CFR 262.23(a) for three years or until he receives a signed copy from the destination facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter. [40 CFR 262.40 and 22 CCR 66262.40]
2	In the overflow HWAA the inspectors observed one 55-gallon container of mixed acid waste (D002) that was not marked with an accumulation start date. According to Mr. Meade the container was in the process of being re-labeled for shipment.	 <p>Photo P4120022</p>	A generator may accumulate hazardous waste onsite for 90 days or less without a permit provided that the date upon which each period of accumulation begins is clearly marked and visible for inspection on each container. [40 CFR 262.34(a)(2) and 22 CCR 66262.34(f)(1)]

Records Review

The inspectors reviewed SpaceX's hazardous waste manifests, land disposal restrictions notification forms, training records, emergency coordinator information and weekly inspection checklists. As noted in the table above, SpaceX failed to present the destination facility signed copy of two hazardous waste manifests during the inspection. SpaceX submitted the destination facility signed copy of the two manifests to EPA via email the day after the inspection. No other areas of concern were identified during the records review.

Closing Conference

The inspectors conveyed preliminary inspection findings to Mr. Meade and Ms. Ostrak and concluded the inspection at approximately 2:25 pm.